

Claims

[c1] What is claimed is:

1. A power management system for controlling power of a portable computer comprising:

- an AC/DC adapter for transforming AC voltage to constant DC voltage and providing the portable computer with the DC voltage;
- a charger for charging a battery of the portable computer, the charger comprising a sense resistor electrically connected with the AC/DC adapter;
- a current sensor comprising a potential difference detecting circuit connected in parallel with the sense resistor for detecting the potential difference between two ends of the sense resistor so as to read an output current of the AC/DC adapter;
- a comparator electrically connected with the current sensor for comparing the output current of the AC/DC adapter with a reference current, and if the output current of the AC/DC adapter is greater than the reference current, the comparator outputting an alarm signal; and
- a logic circuit electrically connected with the comparator for analyzing the alarm signal, and if the alarm signal conforms to a predetermined standard, the logic circuit

controlling operations of the portable computer to reduce the power of the portable computer received from the AC/DC adapter.

- [c2] 2.The power management system of claim 1 further comprising a voltage divider, which is electrically connected with the AC/DC adapter and is used for transforming the output DC voltage of the AC/DC adapter to a plurality of DC voltages of different values.
- [c3] 3.The power management system of claim 1, wherein the logic circuit reduces the power of the portable computer received from the AC/DC adapter by reducing working frequency of a central processing unit (CPU) of the portable computer.
- [c4] 4.The power management system of claim 1, wherein the logic circuit reduces the power of the portable computer received from the AC/DC adapter by reducing a clock of a bus of the portable computer.
- [c5] 5.The power management system of claim 1, wherein the logic circuit reduces the power of the portable computer received from the AC/DC adapter by reducing a rotation rate of a hard disc of the portable computer.
- [c6] 6.The power management system of claim 1, wherein the portable computer comprises a basic input/output sys-

tem (BIOS), and the logic circuit reads and implements a program code of the BIOS so as to analyze the alarm signal.

[c7] 7.The power management system of claim 1, wherein the logic circuit is a keyboard mouse controller (KBC).

[c8] 8.The power management system of claim 1, wherein the logic circuit is a south bridge chip.

[c9] 9.A power management system for controlling power of a portable computer comprising:
an AC/DC adapter for transforming AC voltage to constant DC voltage and providing the portable computer with the DC voltage;
a current sensor electrically connected with the AC/DC adapter for sensing an output current of the AC/DC adapter;
a comparator electrically connected with the current sensor for comparing the output current of the AC/DC adapter with a reference current, and if the output current of the AC/DC adapter is greater than the reference current, the comparator outputting an alarm signal; and
a logic circuit electrically connected with the comparator for analyzing the alarm signal, and if the alarm signal conforms to a predetermined standard, the logic circuit controlling operations of the portable computer to re-

duce the power of the portable computer received from the AC/DC adapter.

- [c10] 10.The power management system of claim 9, wherein the current sensor comprises a potential difference detecting circuit connected in parallel with a resistor of the portable computer for detecting the potential difference between two ends of the resistor so as to read the output current of the AC/DC adapter.
- [c11] 11.The power management system of claim 9, wherein the resistor is a sense resistor included in a charger of the portable computer, and the charger is used for charging a battery of the portable computer.
- [c12] 12.The power management system of claim 9 further comprising a voltage divider, which is electrically connected with the AC/DC adapter and is used for transforming the output DC voltage of the AC/DC adapter to a plurality of DC voltages of different values.
- [c13] 13.The power management system of claim 9, wherein the logic circuit reduces the power of the portable computer received from the AC/DC adapter by reducing a working frequency of a central processing unit (CPU) of the portable computer.
- [c14] 14.The power management system of claim 9, wherein

the logic circuit reduces the power of the portable computer received from the AC/DC adapter by reducing a clock of a bus of the portable computer.

[c15] 15.The power management system of claim 9, wherein the logic circuit reduces the power of the portable computer received from the AC/DC adapter by reducing rotation rate of a hard disc of the portable computer.

[c16] 16.The power management system of claim 9, wherein the portable computer comprises a basic input/output system (BIOS), and the logic circuit reads and implements a program code of the BIOS so as to analyze the alarm signal.

[c17] 17.The power management system of claim 9, wherein the logic circuit is a keyboard mouse controller (KBC).

[c18] 18.The power management system of claim 9, wherein the logic circuit is a south bridge chip.